Education on life style modification among patients underwent knee replacement surgery.

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Abstract : Education on life style modification among patients underwent knee replacement surgery.A quasi experimental study was conducted to assess the effect of Education on life style modification among patients underwent knee replacement surgery. at a selected hospital, Coimbatore. quasi experimental one group pretest and post-test design was adopted and the purposive sampling technique was used to select 40 patients who were at REX hospital Informed consent was obtained from the patients .Data was collected regarding demographic variable and knowledge with the help of structured questionnaire. Lecture cum health education method was adopted, education was given with the help of flashcards .The mean value of pretest was 21.05 and the value for SD for pretest was 2.79 and the mean percentage of pretest was 44.78%.The mean value of post test was 26.4 and the value for SD for post test was 2.34 and the value for mean percentage of post test was 56.17% . The mean difference 5.35. The 't' test was used to test the significance of mean difference in knowledge regarding life style modifications among knee replacement patients. The calculated 't' value (11.48) is greater than the table value at 0.050. This shows that there was a significant difference in the mean level of pretest and post test knowledge scores. Thus education on life style modification among patients underwent knee replacement surgery was effective.

Key words : lifestyle modification ,knee replacement, osteoarthritis, implant, NSAIDS, knee cap

Introduction:

Osteoarthritis is the most common form of knee joint disease that affect older people. Osteoarthritis is the commonest form of arthritis or joint diseases and it is the important cause of pain and disability during advancing years of life. So Osteoarthritis develops in everyone during old   age. For Osteoarthritis the total knee replacement is the advanced surgical treatment.

During the surgery, the knee joint is replaced with artificial material. The knee joint is replaced with artificial material. The knee joint is made up of the femur (thigh bone) the tibia (shin bone). The patella (knee cap) and cartilage. The end of the femur is removed and replaced with a plastic piece that has a metal stem.

Life style modifications for knee replacement patients aims at preventing hazards of bed rest assist with adequate functional range of motion and strengthening knee musculature to obtain independent activities of daily living. There are many indications for total knee replacement like disabling knee pain with functional impairment, radiographic evidence of significant arthritic involvement, failed conservative measures including ambulatory aids, NSAIDS and life style modification.

Osteoarthritis is very common among old age peoples.Health education on life style modifications among knee replacement patients. So rehabilitative measures for knee replacement patient has found to be cost affective. So the researcher is been interested to do the study on "Education on life style modification among knee replacement patients"

Statement Of The Problem

A quasi experimental study to evaluate the effect of Education on life style modification among patients underwent knee replacement surgery

Objectives

1)   Assessment of knowledge on life style modifications among patients underwent knee replacement surgery

2)   Evaluation of effect of Education on life style modification among patients underwent knee replacement surgery

3)   Association of selected demographic variables and knowledge on life style modifications among patients underwent knee replacement surgery

Operation Definitions

Education

Education is a process of importing knowledge on life style modifications among patients underwent knee replacement surgery

Life style modification

A change that occurs in the living pattern of an individual among patients underwent knee
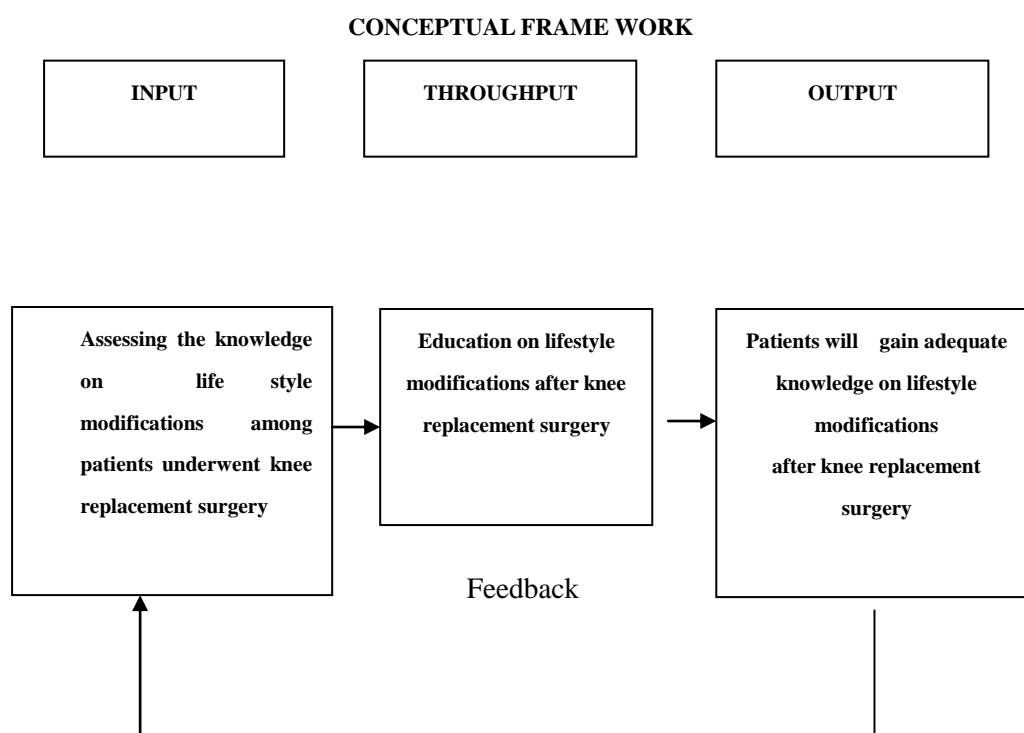
replacement surgery

Knee replacement

Knee replacement means replacing the joint between the femur and the tibia by prosthesis like hybird or any implant.

Patient

A person who underwent knee replacement surgeries

Projected Outcome   Patients will have adequate knowledge on Life style modification

Rosenstock's Health Belief Model

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CONCEPTUAL FRAME WORK

INPUT	THROUGHPUT	OUTPUT

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Assessing the knowledge on life style modifications among patients underwent knee replacement surgery	→	**Education on lifestyle modifications after knee replacement surgery**	→	**Patients will gain adequate knowledge on lifestyle modifications after knee replacement surgery**

Feedback

Hypothesis   There will be a significant improvement in the knowledge of lifestyle modification   among knee replacement patients.

Material And Methods

Research Approach

A quantitative approach was followed in the study. This study aimed at "Education on life style modifications for knee replacement patients".

Research Design

One group pretest and post test design was adopted for this study.

0_1 -   Pretest to assess problem

X   -   Structured teaching programme

0_2 - Post test

Setting :   This study was conducted in Rex ortho Hospital, R.S.Puram, Coimbatore.

Sampling Technique And Sample Size

Convenient sampling technique was adopted for this study to select samples.40 samples were selected from this area.

Criteria For Sampling

Inclusion Criteria

1. Patient who are posted for knee replacement.

2   Bilateral knee replacement patients.

Exclusion   criteria

Description Of Tool

Part - 1

Demographic variable consist of Age, Sex, Marital Status, Education, Occupation And Income Of The Person, previous history of any medical illness, surgical history, Name of the surgery.

Part - II

Assessment of knowledge was done using multiple choice questionnaire prepared by the investigator. It consists of totally 19 questions related to rehabilitative measures for knee replacement . Each correct response carries 1 score and each wrong response carries 0 score.

Data Collection Procedure

The main study was conducted   at Rex ortho hospital in R.S. Puram, Coimbatore.

The knee replacement patients were selected from Rex ortho hospital using convenient sampling technique. The investigator   maintained good   rapport with the people . The investigator explained the purpose of the study and gained the confidence and then introduced the tools to the people. The investigator also spent time in using down the health related rehabilitative measures for knee replacement apart from the data collected.

Data was collected regarding demographic variable and knowledge with the help of structured questionnaire. Lecture cum health education method was used with the help of flash cards.

Approximately 15 minutes was spent with each person. At the end of touching doubts were cleared. They were co-operative and attentive. After 2 days interval post test was conducted

with the same questionnaire with the same group of people.

Techniques For Data Analysis

The collected data was analysed categorised and interpreted in master coding sheet and scoring was given to each variables.

Appropriate statistical techniques were used to analyse the data.

➢ Organize data in a master sheet

4) ➢ 't' test was performed to find out the significance of knowledge on life style modifications among patients underwent knee replacement surgery

.   t $= \dfrac{\overline{X_1} - \overline{X_2}}{SD\sqrt{\dfrac{1}{n_1}+\dfrac{1}{n_2}}}$

where SD is the standard deviation of the pretest and post test.

That is SD $= \dfrac{\sqrt{(n_1 - 1)\,(Sd_1)^2 + (n_2 - 1)(SD_w)^2}}{n_1 + n_2 - 2}$

where SD_1 $= \dfrac{\sqrt{(x_1 - \overline{x}_1)^2}}{n_1 - 1}$

where SD_2 $= \dfrac{\sqrt{(x_2 - \overline{x_2})^2}^{\,2}}{n_2 - 1}$

SD_1 =   Standard deviation of the pretest score

SD_2 =   Standard deviation of the post test score

Total of pretest score

X_1 =   The mean of pretest score $= \dfrac{Total\ of\ Pretest\ Score}{Total\ sample\ size}$

X_2 =   The mean of post test score $= \dfrac{Total\ of\ post\ test\ score}{Total\ samplesize}$

n_1 =   Total sample number in pretest

n_2 =   Total samples number in post test

Data   Analysis And Interpretation

The   analysis   and interpretation   of data   which is collected as an attempt to find out the effectiveness of educational programme regarding life style modifications for knee replacement patients. The study was conducted in R.S. Puram, (Rex ortho Hospital) at Coimbatore. 40 samples were collected for the study. A structured questionnaire consisting of 28 questions related to rehabilitative measures for knee replacement patients. Education was given regarding rehabilitative measures for knee replacement patients. Reassessment of knowledge was done by using the same questionnaire.

DISTRIBUTION OF AGE

Age (in years)	No. of respondents	Percentage(%)
45-55	14	35
56-65	16	40
66-75	10	25
Total	**40**	**100**

DISTRIBUTION OF AGE

Data   presented in the table reveals that 35% of knee replacement patients is 45-55 age group. 40% of knee replacement patients were comes under 56 - 65 age group , 25% of knee replacement   patients   belongs   to   66-75   years   of   age.
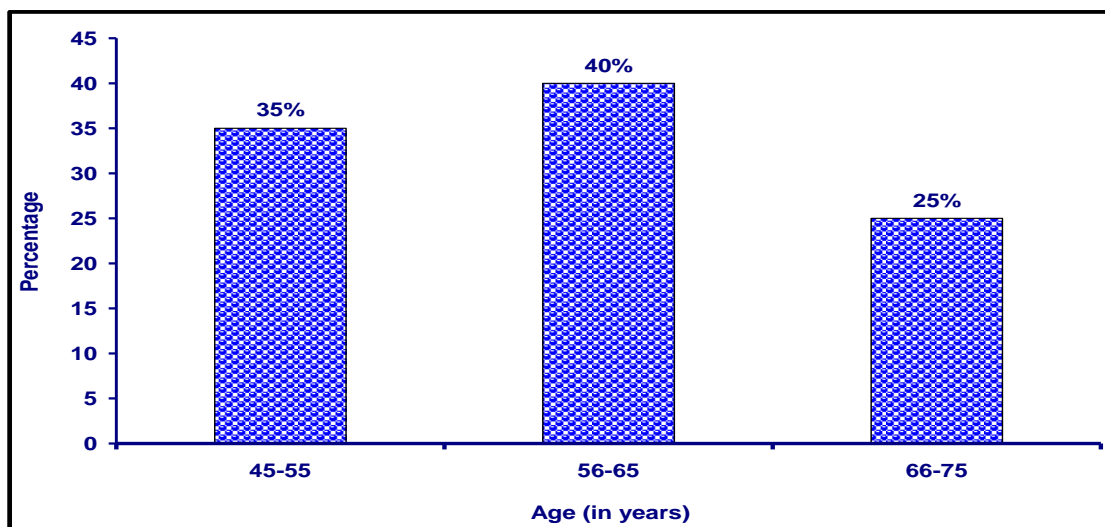
MEAN, STANDARD DEVIATION, 'T VALUE

	Mean	**Mean Percentage**	**Standard deviation**	**Mean difference**	**'t' value**
Pretest	21.05	44.78	2.79	5.35	11.48
Post test	26.4	56.17	2.34		

The above table shows the following inference the mean value of pretest was 21.05 and the value for SD for pretest was 2.79 and the mean percentage of pretest was 44.78%. The mean value of post test was 26.4 and the value for SD for post test was 2.34 and the value for mean percentage of post test was 56.17% . The mean difference 5.35.

't' test was used to test the significance of mean difference in knowledge regarding life style modifications for knee replacement patients.

The calculated 't' value (11.48) is greater than the table value at 0.050. This shows that there is a significant difference in the mean level of pretest and post test knowledge scores. Thus the education to knee replacement patients on Rehabilitative measures helps on gaining adequate knowledge.

Results And Discussion

The main focus of the study was to identify the knowledge of knee replacement patients regarding life style modification. Education was given to determine the change in knowledge on life style modification after knee replacement . The knee replacement patients were assessed regarding their knowledge on life style modification, using questionnaire. Their knowledge was reassessed after 3 days using the same questionnaire and the mean score was calculated on the basis of answers given by them.Education was given to improve the knowledge of knee replacement patients regarding life style modification.

Findings Of The Study

The pretest study shows that The pretest mean value was 21.05 and the standard deviation value for pretest was 2.79. The post test mean value was 26.4 and the standard deviation value for post test was 2.34.The mean difference of the study was 5.35.The calculated 't' value 11.48 was greater than the table value at 0.050 level of significant.

Assessment Of Knowledge On Life Style Modifications Among Knee Replacement Patients.

40 samples were selected for this study to assess the knowledge, attitude and practice of life style modification assessment was done for 3 days.

Education To The Knee Replacement Patients On Life Style Modification.

Structured education was given to knee replacement patients regarding life style modification using flash cards. The contents include definition and causes for Osteo arthritis and life style to be modified. By giving education the knowledge level has been improved. During education knee replacement patients responded well and asked many doubts regarding life style which can be modified.

Reassessment Of Knowledge On Life Style Modifications Among Knee Replacement Patients.

After 3 days of education, reassessment of knowledge on life style modification was done by using same questionnaire. The patients performed better and each questions was answered well by them. The score was analyzed and interpreted. The maximum score of post test is 33. In post test the knowledge of knee replacement patients on life style modification was increased.The results of this study suggests that. There is a significant effect on education to knee replacement patients on life style modification.

Limitations

➢ The sample size is only a small group of 40 patients.

➢ The study was conducted only for 7 days.

➢ The study was conducted only among patient underwent knee replacement patients.

Recommendations

➢ This study becomes more effective if would be conducted with more samples.

➢ The method of education can be effective by using different Av aids like pamphlets, leaflets. Videos etc.

➢ Follow up study can be done to know the effectiveness of the study.

➢ The study can be conducted prior to knee replacement surgery.

Summary:

The present study was conducted to study knowledge on life style modification among knee replacement patients .It was conducted in Rex Ortho hospital. The total sample size was 40. The pre - assessment was done using structured questionnaire. The education was given through one to one education and discussion using flash cards. The 't' test was used to find out the effectiveness of education program. The end result showed significant difference between before and after education. It indicates that education on life style modification for knee replacement patients is effective and the patients implement the activities in their day-to-day life.

Conclusion:

"Health is a human right". Every individual has the right to achieve and maintain it. A health professional is essentially a teacher and we have a responsibility to teach preventive measures to prevent complications.Hence the present study reveals that planned education programme will improve the knowledge on life style modification among patients who underwent knee replacement surgeries and apply the educational contents in their day to day life.

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